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# Record

July 13, 2000

Volume 24 No. 34

★ ★ ★ Washington University in St. Louis ⚜ ⚜ ⚜

## Milestone

### WU geneticists attend celebration at White House

By David Linzee

School of Medicine researchers went to the White House June 26 to help announce the assembly of a working draft of the human genome. Robert H. Waterston, M.D., Ph.D.; Richard K. Wilson, Ph.D.; and Mundeep Sekhon joined scientists from across the nation in celebrating this milestone in the massive effort to decipher the genome — 3 billion DNA letters that make the blueprint for the human body. The Genome Sequencing Center at the medical school has contributed approximately one-fourth of the DNA sequence generated by the Human Genome Project, an international public consortium.

Of the working draft, Waterston said, "It's amazing not for what it actually tells us as much as for the promise it holds. With the information in front of us, we begin to see the path forward in a way that was hard to see without it." Waterston is the James S. McDonnell Professor of Genetics, head of the Department of Genetics and director of the Genome Sequencing Center. Wilson is associate professor of genetics and center co-director. Sekhon is a lab supervisor.

The White House ceremony was attended by U.S. senators and ambassadors of five nations, as well as by Francis Collins, M.D., Ph.D., director of the National Human Genome Research Institute, and James Watson, Ph.D., who won the Nobel prize for his role in discovering the structure of DNA in 1953. British Prime Minister Tony Blair appeared on a satellite link.

See **Genome**, page 4

ALLISON WILSON

**Scientists from labs all over the country gathered in Washington to celebrate completion of the human genome's working draft. Standing on the White House steps are (from left) James Watson, Ph.D. (Cold Spring Harbor Laboratory), Eric Lander, Ph.D. (Massachusetts Institute of Technology), Richard Gibbs, Ph.D. (Baylor College of Medicine), and Washington University's Robert H. Waterston, M.D., Ph.D., the James S. McDonnell Professor, head of genetics and director of the the Genome Sequencing Center, and Richard K. Wilson, Ph.D., associate professor of genetics and center co-director.**

## Dating water

### New method will aid pollution studies

By Tony Fitzpatrick

Whether it's the birthday of a movie star or the "sell-by" date on a bottle of beer, American culture is obsessed with age. Yet few give a second thought to the age of water, the mainstay of life.

One of those few is Robert E. Criss, Ph.D., professor of earth and planetary sciences in Arts & Sciences, who has developed a new, nonradioactive method to date water. The method involves a sophisticated formula that relies heavily on the ratio between oxygen-16, which comprises 99.8 percent of all oxygen in water, and oxygen-18, a stable isotope of oxygen. This formula gives a distinctive "fingerprint" for the water. Using the formula, Criss is able to get an average age of water from any system he samples.

The method will be essential to future water quality and climate change studies, and eventually will serve as a way to track both the time and severity of pollutant emissions in streams. Criss is incorporating it into an ambitious study of water quality in the watersheds of the Mississippi and Missouri rivers, together the largest river system in North America.

Isotopes are different variations of the same element. There are three oxygen isotopes, oxygen-16, -17 and -18. All three behave chemically as oxygen, differing only in their mass, or weight. About one oxygen atom in 500 is oxygen-18, and only one in about 2,500 is oxygen-17.

"Most methods that date water rely on radioactive isotopes, such as carbon-14, which are usually tied to some trace organic chemical dissolved in the water," Criss explained. "But with these methods, one has to ask: Are you really dating the water or looking at when that chemical got in

See **Water**, page 5

## New skills

### Minority Youth in Construction Program is a hit

By Christine Farmer

One might think that finding teen-agers willing to give up six weeks of their summer vacation to learn about careers in construction would be challenging, but there were more than a few takers when the University launched the new Minority Youth in Construction Program currently under way.

About 75 African-American teens, who will be entering high school in the fall, applied to enroll in the six-week program, and 33 were accepted. They are not only committed to this summer's session, but will return to the University for the next three summers to complete the program.

"We were surprised at the overwhelming response we received," said Sandra Marks, director of supplier diversity programs. "We planned on having 25 kids. We kept our recruiting efforts fairly limited since it was the first year, but the parents were very interested in having their children on the campus of Washington University."

The boys and girls, sporting shirts emblazoned with MYIC, don hard hats while touring construction sites. They are on campus from 8 a.m. to 3 p.m. Mondays through Fridays through July 28. While learning about the various trades and career opportunities in construction, the teens also attend daily sessions in Eads Hall to build their math and computer skills. Metra Gilliard, a recent graduate of the John M. Olin School of Business, teaches the sessions.

"The math enrichment sessions are designed to build their skills for entry into high-skill levels of

See **Youth**, page 5

## Risa Zwerling to bring rare gifts to role as WU's first lady

By Betsy Rogers

Risa Zwerling has a gift for connecting with people. She has spent her life shaping these fundamental links with others — with girlhood friends in Queens, N.Y., with suffering patients in a New York City rehabilitation hospital, with disadvantaged toddlers at St. Louis' Our Little Haven, where she's a volunteer.

In her professional life, as managing director of account support for Magellan Behavioral Health, she helps employers and their employees connect with needed services — everything from mental health programs to dependent care and stress counseling following disasters.

"Risa is a magnet for people," said Gail Campbell, a long-time friend and former co-worker. "She has a passion for life, to understand and know people, to really listen. She is absolutely genuine. She has a wealth of friends, and her friendships last forever."

In 1995, Zwerling made a connection of a different order. She wrote Mark S. Wrighton, then provost at the Massachusetts Institute of Technology and the newly announced chancellor-elect at Washington University. A transplant to St. Louis herself 17 years before, she suggested that he might like to know someone outside the University community here and to get to know people in the neighborhood.

She sent the letter to the chancellor's office here, and it landed in a junk mail pile. But after his arrival in St. Louis several months later, Wrighton rescued it, and in a few days gave her a call. Now, five years later, the two will be married July 28 at Harbison House, the chancellor's official residence.

As the University's new first lady, Zwerling hopes to continue helping people make connections.

JOE ANGELES

**Risa Zwerling and Chancellor Mark S. Wrighton will be married July 28.**

Among her plans and hopes: running a "Homesick Restaurant" serving up occasional meals for students missing their families and providing members of the community another means of access to Wrighton.

Born in Brooklyn in 1948 and raised in Queens, Zwerling received a bachelor's degree in psychology from Barnard College of Columbia University in 1970 and soon afterward took a job as a social worker at Bird S. Coler Hospital, on the East River's Welfare Island under the 59th Street Bridge. Coler was a rehabilitation hospital, treating patients with chronic, long-term conditions arising from drug or alcohol addiction, birth defects, spinal cord injuries and other causes.

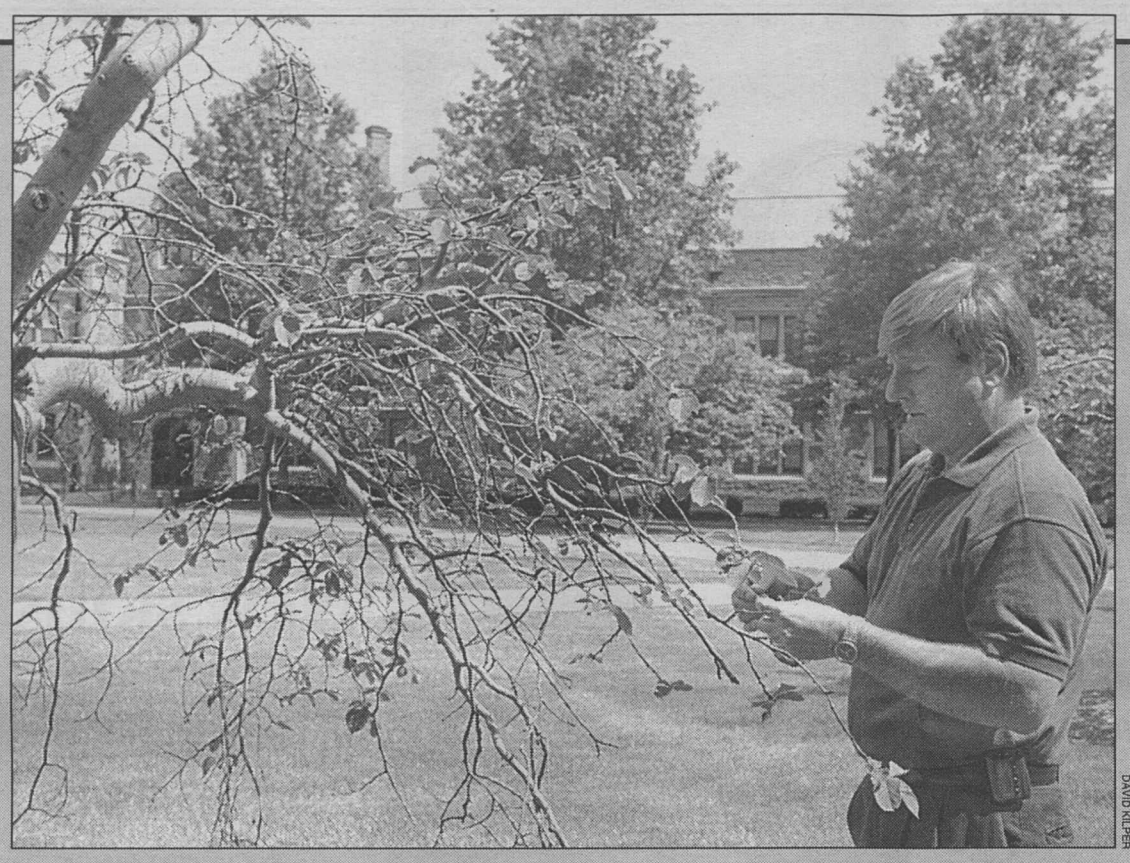
The patients were very much in charge of the place, Zwerling said. They had established their own culture there, and to work successfully with them the staff had to adapt accordingly. "When you went to work and landed on that island, you became part of them," Zwerling reflected.

From Coler she went to the University of Maryland in Baltimore, earned a master of social work degree in 1975 and became a psychiatric social worker at Baltimore's Sinai Hospital. Then, newly married to men's clothing manufacturer Robert Schmidt and relocated in St. Louis, she went to work at Missouri Baptist Hospital.

With the birth of their first daughter, Anna, in 1980, Zwerling became a stay-at-home mom. "I was very wrapped up in being a mother," she noted. A second daughter, Leah, followed four and a half years later.

After Leah was born, Zwerling enrolled at Washington University's John M. Olin School of Business and earned an MBA in 1989. Zwerling, who had divorced in 1987, signed on after graduation with Citicorp Mortgage in St. Louis and soon became

See **First Lady**, page 6



DAVID KILPER

**Taking root** University horticulturist Paul Norman examines one of a grouping of three Scotch elms planted this spring east of Olin Library. The trees will grow to form a canopy like that of the huge old Scotch Elm east of Brown Hall. Ten of the elms were planted around campus this spring, and one remaining tree will be planted at the Charles F. Knight Executive Education Center. "It's a unique species of tree with a spread of 85 feet," Norman said. "We had to get them in Canada. It's hard to find them because no one wants them in their yard. They take up too much room."

# Helping investors to make a difference — and a profit

## First Midwest lending school set here

BY GERRY EVERDING

Bankers, private developers and leading experts on community development lending will visit Washington University Sunday-Thursday, July 16-20, to learn how to make a profit — and a difference — by investing in low-to-middle income neighborhood housing and business initiatives.

Sponsored by the Federal Reserve banks of San Francisco and St. Louis and hosted by the Center for Social Development (CSD) at the George Warren Brown School of Social Work, the event marks the first time that the Federal Reserve has offered its National Community Development Lending School (NCDLS) in the Midwestern United States.

"We're hoping that holding the lending school in St. Louis will provide a good boost to community development initiatives in this part of the country," said Matthew Ashby, a community affairs representative with the St. Louis Federal Reserve.

"Many banks and development organizations have expressed an interest in learning how to achieve greater scale or productivity in community development projects," Ashby continued. "The Midwest has never been a great hotbed for community development lending, at least not at the level it's practiced on the coasts. In a big picture way, we hope the school will spur greater interest in community development here."

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>
> MATTHEW ASHBY

The lending school provides participants with the latest skills and techniques for successful community development lending in such areas as single- and multi-family housing, small business, commercial real estate and community-based facilities. Creating profitable long-term business relationships between banks and community organizations is a primary goal of the community lending movement.

Banks and other lending institutions have come under pressure to invest in and make loans to the communities they serve, an obligation generally outlined in their charters. The Community Reinvestment Act of 1977 defined this obligation by requiring banks to help meet the needs of their communities.

But community lending is garnering attention nationwide as more and more institutions discover the profits to be made in serving the needs of inner-city, low-income areas. More and more financial institutions are adopting a market-based approach to low- and moderate-income communities — a strategy that has led to greater profits.

Recently, Bank of America announced plans to invest $500 million in community lending programs around the country. Firstar has agreed to invest more than $100 million in North St. Louis alone.

The lending school chose the CSD as a host because of its national leadership role in promoting innovative community-based asset-building programs. CSD Director Michael Sherraden, Ph.D, the Benjamin E. Youngdahl Professor of Social Development, is the originator of a matched-savings program known as Individual Development Accounts or IDAs. These accounts are now being used nationwide to help residents of low- and middle-income communities save for investments in education, home purchases and small business ventures.

Students at the lending school will have the opportunity to network with other bankers from across the country to share problems and solutions. Participants will stay in University residence halls and attend classes in Goldfarb and Brown halls.

The school's 15-member faculty boasts some of the nation's leading experts in the fields of banking, community development and consulting, including Thomas FitzGibbon Jr., president of Manufacturers Community Development Corp., a subsidiary of the Chicago-based Manufacturers Bank; Karen Kollias, district director of the Mid-Atlantic region for Neighborhood Reinvestment Corp., Baltimore; and Jeff Nugent, senior vice president at the Development Training Institute, Baltimore, where he directs the Public and Private Institutions Department.

Dean Shanti Khinduka will give the address at the opening ceremonies Sunday, July 16, in Holmes Lounge.

# Leading social work deans meet here

BY GERRY EVERDING

The creation of a national center on social work research within the National Institutes of Health is one of several initiatives endorsed by a new coalition of social work deans who met here June 23-25 to discuss strategies for advancing social work education through research.

"An increased reliance on research has helped transform social work education and practice over the last decade, but this trend must be broadened and intensified if the profession hopes to truly fulfill its mission," said Shanti Khinduka, Ph.D., host of the meeting and dean of the George Warren Brown (GWB) School of Social Work.

"Deans from some of the nation's leading schools of social work have recognized the importance of research for some time, but this attitude is not as widespread as it should be in the profession," he added. "As a result, our knowledge base is not advancing as rapidly as it should. Social work is not getting the research dollars it needs, it's not getting the respect it deserves in academic circles and most important, it's not making as big a difference as it could in changing social conditions and improving the lives of people."

Convened by an invitation from Ronald Feldman, Ph.D., dean of social work at Columbia University, the meeting was open to deans and directors of "Research One" schools of social work — schools with $3 million or more in annual outside research funding. The nation has nearly 150 social work schools, but less than a quarter meet the criteria for Research One status. GWB received more than $5 million in outside research funding in 1999-2000.

Joining Feldman and Khinduka in organizing the meeting were social work deans from the universities of Chicago, Michigan, North Carolina, Southern California, California-Berkeley and Pennsylvania. In welcoming comments, Chancellor Mark S. Wrighton offered a strong endorsement of the group's pro-research mission and said that GWB's research strengths have helped make it a valued member of many interdisciplinary research teams, both on this campus and elsewhere.

Creating considerable excitement at the meeting was news that a bipartisan group of legislators has introduced a bill proposing the establishment of a national center to support and conduct basic social work research. Now tagged as Senate Bill 178, the legislation was submitted by Sen. Daniel K. Inouye, D-Hawaii, and co-sponsored by Sen. Barbara Mikulski, D-Md. A House version was introduced by Rep. Ciro Rodriguez, D-Texas, and co-sponsored by Rep. Asa Hutchinson, R-Ark.

The meeting also included panel discussions on:

- funding opportunities for social work research;
- support services and other needs to encourage excellence in research by social work faculty and schools;
- support for research from various social work educational and professional organizations; and
- special needs of research-intensive schools.

"For a long time, it has been our feeling that the existing social work education and professional organizations in social work do not fully address the specific needs and concerns of those schools of social work that consider research an integral part of their mission," Khinduka said.

"The social work community has many priorities, but many of our deans feel strongly that research is just too important for any of us to ignore. It's important for the profession to demonstrate effectiveness in the field. It's important for students to know our practice is based on evidence. And, it's important for education that the latest research findings are incorporated into our educational offerings."

# News Briefs

### Service First!

Service First, an initiative that introduces first-year college students to community service, is looking for faculty and staff volunteers. On Sept. 3, more than 600 students will tackle various projects in the St. Louis area ranging from painting murals to revitalizing vacant lots. Volunteers will work with groups of 40 students on designated projects. For more information, please contact Karin Horstman at 935-5923 or horstman@dosa.wustl.edu. To learn more about Service First, check the W eb (http://www.getinvolved.wustl.edu).

### Trimming up

You can attend Weight Watchers meetings on campus during your lunch hour each Tuesday at noon in Room 241 Simon Hall. Anyone interested in learning more about the Weight Watchers At Work program can attend a free meeting and registration session July 18. The new 12-week session will begin July 25 at a cost of about $9 per week. For more information, call Peggy Smith at 935-6369 or e-mail smithp@olin.wustl.edu.

**Campus quiz: This creature flashes his toothy grin from what Hilltop Campus building? Answer below.**

### Did you know?

Nearly half of the St. Louis area's 5,400 physicians were educated at the Washington University Medical Center.

*Answer: This fellow and his malocclusion appear on the old Field House.*

**Record**
Washington University community news

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**Medical News** (314) 286-0111 Campus Box 8508 duke@medicine.wustl.edu

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Washington
WASHINGTON·UNIVERSITY·IN·ST·LOUIS

**Record** (USPS 600-430; ISSN 1043-0520), Volume 24, Number 34/July 13, 2000. Published for the faculty, staff and friends of Washington University. Produced weekly during the school year, except school holidays, and monthly during June, July and August by the Office of Public Affairs, Washington University, Campus Box 1070, One Brookings Drive, St. Louis, Mo. 63130. Periodicals postage paid at St. Louis, Mo.

**Where to send address changes, corrections:**

*Postmaster and non-employees* Record, Washington University, Campus Box 1070, One Brookings Drive, St. Louis, Mo. 63130.

*Hilltop Campus employees* Office of Human Resources, Washington University, Campus Box 1184, One Brookings Drive, St. Louis, Mo. 63130.

*Medical Campus employees* Payroll Office, Washington University, Campus Box 8017, 660 S. Euclid Ave., St. Louis, Mo. 63110.

# Medical School Update

## Scientists discover new way to distinguish self from other

By Linda Sage

Challenging an important dogma, immunologists have discovered a new way the body distinguishes its cells from foreign cells so it can destroy microbes without harming itself. The findings, reported in the June 16 issue of Science, suggest a new approach to autoimmune disease and ovarian cancer.

Like soldiers, cells that kill harmful bacteria and parasites must recognize invaders so they don't destroy their comrades with friendly fire. Until now, scientists thought that only immune cells called natural killer cells were equipped for the job. These cells scan other cells for a security badge called MHC class I. If this badge is missing or altered, the offending cell is destroyed.

But researchers at the School of Medicine have discovered that cells called macrophages, which eat microbes and damaged cells, also can distinguish self from other. Instead of relying on MHC class I, they recognize a cell-surface protein called CD47.

"The beauty of the CD47 system is that a macrophage with a single receptor can discriminate between self and foreign. If it sees a particle with CD47, it knows all is well. If it sees a particle without CD47, it knows the particle is foreign and potentially dangerous," said Per-Arne Oldenborg, Ph.D., lead author of the Science paper.

Oldenborg is a postdoctoral fellow in the laboratory of Frederik Lindberg, M.D., Ph.D., an assistant professor of medicine in the Division of Infectious Diseases and an assistant professor of molecular microbiology.

> "The beauty of the CD47 system is that a macrophage with a single receptor can discriminate between self and foreign."
>
> Per-Arne Oldenborg

"Until now, our understanding of how the immune system tells the difference between self and foreign has been based on the dogma that only the interaction between natural killer cells and MHC class I is important," Lindberg said. "Our finding challenges that dogma by showing that the body's own cells can be represented by CD47 and that the macrophage, a much more basic component of the body's defense system, can make the distinction."

In 1998, Lindberg's group injected white blood cells that lacked CD47 into normal mice and found that the cells quickly disappeared. After Oldenborg joined the group in 1999, he obtained the same result with red blood cells that lacked CD47. By injecting stained cells and examining slices of various organs under the microscope, he found the cells in the spleen. They were in a region called the red pulp, whose many macrophages cleanse blood of damaged cells and foreign particles.

Because the injected red blood cells differed from normal red blood cells only in their lack of CD47, the researchers concluded that macrophages must recognize this cell-surface protein. "CD47 tells macrophages to leave them alone," Oldenborg said. "Because bacteria and other foreign particles in the blood do not express CD47, they get eaten up."

Macrophages roam the body, congregating in places such as the lungs, gut and spleen where pathogens are likely to enter. Therefore, people have wondered how these front-line cells could possibly recognize all the different types of microbes that infect humans.

Borrowing an analogy, Oldenborg said that foreign submarines were thought to be surfacing around the Swedish archipelago during the 1980s. The Swedish navy distributed a map of submarine silhouettes so residents could report which ones they saw. Of course, most of the reported vessels turned out to be Swedish.

The navy therefore distributed a new map showing only the three types of Swedish submarines. They asked residents to call only if the silhouette they saw was not on that map. "The Swedish researcher Klas Kärre used this analogy to explain natural killer cell function, but it also is apt for CD47," Oldenborg said. "Recognizing a single molecular tag, CD47, is much easier than having to recognize a large number of unknown tags."

Lindberg's group obtained the cells without CD47 from mice whose CD47 gene had been inactivated. Lindberg derived these mice when he was a postdoctoral fellow in the Washington University laboratory of Eric J. Brown, M.D., who now is at the University of California, San Francisco.

The mice are much more sensitive to certain autoimmune diseases, particularly hemolytic anemia, in which the body destroys its own red blood cells. Therefore abnormally low levels of CD47 might contribute to this condition in humans. In fact, researchers previously discovered that red blood cells of people with a disorder called Rh null, which involves mild hemolytic anemia, have less than 25 percent of the usual level of CD47.

In contrast, certain ovarian tumors display too much CD47. "That might be a way for tumor cells to turn off macrophages and therefore escape destruction," Oldenborg said. "So it will be important to investigate the role of CD47 in specific diseases."

## Medical school faculty receive grants totaling $14.6 million

Numerous School of Medicine faculty recently have received grants of $1 million or more to fund research on topics ranging from asthma to brain circuits.

Ellen Li, M.D., Ph.D., professor of medicine, has received a five-year $4.6 million grant from the National Institute of Diabetes and Digestive and Kidney Diseases. Li will oversee the development of a Silvio O. Conte Digestive Diseases Research Core Center at the medical school

Steven L. Brody, M.D., assistant professor of medicine, has received a five-year $1.6 million grant from the National Heart, Lung, and Blood Institute. Brody is studying the role of a particular gene in the development of airways and left-right asymmetry.

Daniel P. Schuster, M.D., professor of medicine and associate dean for clinical research, has received a four-year $1.6 million grant from the National Heart, Lung, and Blood Institute. Schuster will investigate factors contributing to acute lung injury.

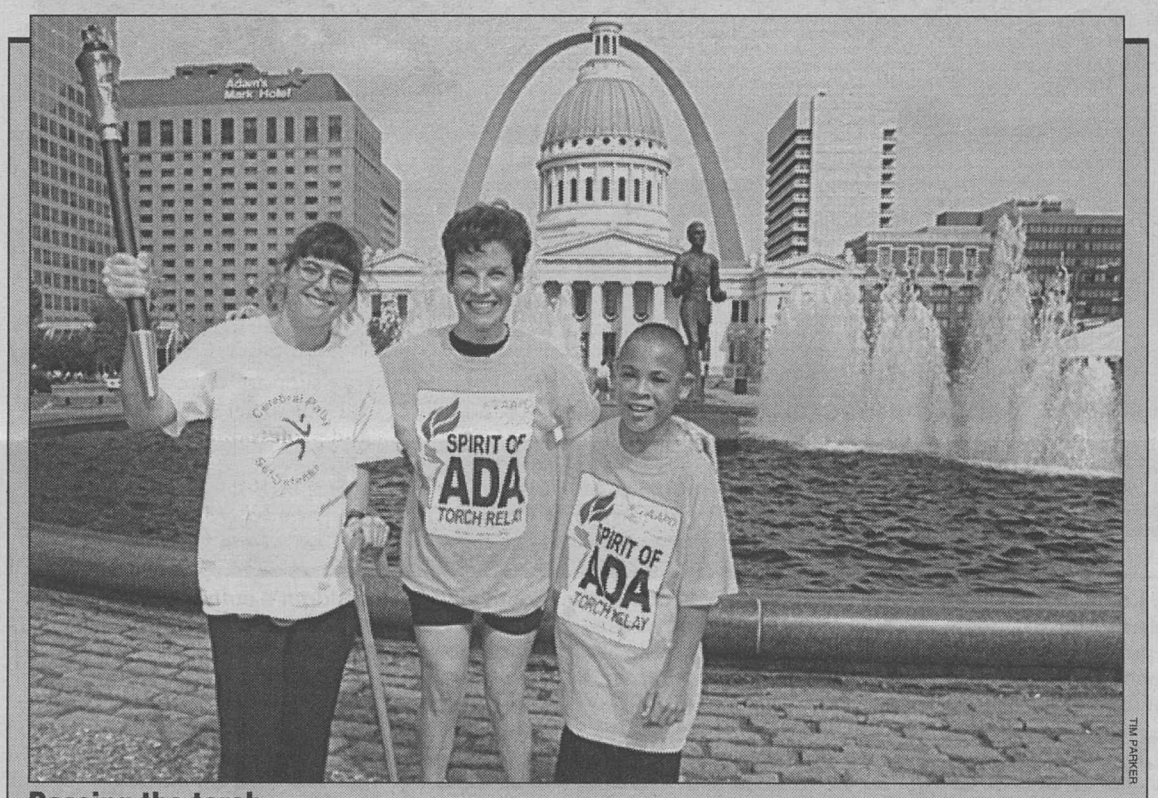
Ann Marie Craig, Ph.D., associate professor of anatomy and neurobiology and a Pew Scholar in the Biomedical Sciences, has received a five-year $1.5 million grant from the National Institute of Neurological Disorders and Stroke. Craig is determining how proteins reach their correct sites in nerve cells.

Arthur D. Loewy, Ph.D., professor of neurobiology, has received a four-year $1.5 million grant from the National Heart, Lung, and Blood Institute. The research focuses on circuits in the brain that control basic bodily functions.

Mike M. Mueckler, Ph.D., professor of cell biology and physiology, has received a five-year $1.5 million grant from the National Institute of Diabetes and Digestive and Kidney Diseases. Mueckler will study the structure and function of a protein that permits cells to take up glucose.

Jonathan M. Green, M.D., assistant professor of medicine and pathology and immunology, has received a four-year $1.2 million grant from the National Heart, Lung, and Blood Institute. Green is studying a cell-surface protein linked to asthma and other inflammatory disorders.

Colin P. Derdeyn, M.D., assistant professor of radiology, has received a four-year $1.1 million grant from the National Institute of Neurological Disorders and Stroke. Derdeyn is investigating how drugs designed to lower cholesterol levels also reduce some individuals' risk of stroke.




TIM PARKER

**Passing the torch** Rebecca Lammers lifts one of the torches used in the Spirit of ADA Torch Relay, held at Kiener Plaza July 4. Beside her are her physician, Jan Brunstrom, M.D., and Nicholas Steward. All three have cerebral palsy. The event marks the 10th anniversary of the Americans with Disabilities Act. Relays are being held in 24 cities nationwide, concluding in New York City Aug. 6-7. Brunstrom is assistant professor of neurology and cell biology and director of the Pediatric Neurology Cerebral Palsy Center at the School of Medicine.

## Alex S. Evers is named president of university anesthesiologists

Alex S. Evers, M.D., the Henry Eliot Mallinckrodt Professor and Head of the Department of Anesthesiology at the School of Medicine, is the new president of the Association of University Anesthesiologists (AUA).

He began a two-year term as AUA president in May at the organization's 47th Annual Meeting and Scientific Sessions in Salt Lake City, Utah.

Evers also is a professor of internal medicine and of molecular biology and pharmacology. He is known for his research on the molecular mechanisms through which anesthetics depress the nervous system.

**Evers:** Begins two-year term

## Boxerman interim director of Health Administration Program

Stuart B. Boxerman, D.Sc., has been named interim director of the Health Administration Program at the School of Medicine.

Boxerman, an associate professor of health administration, replaced James O. Hepner, Ph.D., effective July 1. Hepner is retiring after directing the program for 33 years.

In addition to his responsibilities as interim director, Boxerman will teach courses in statistics, operations research and information systems. He also will continue researching process improvement and error reduction in health-care delivery systems.

Boxerman earned all three of his degrees from Washington University. Two were in electrical engineering — a bachelor's degree in 1963 and a master's degree in 1965. In 1970, he was awarded a doctorate in applied mathematics and computer science.

He joined the Health Administration Program as an assistant professor in 1974. He was named associate director in 1983 and deputy director in 1991.

The Health Administration Program was founded in 1946. The graduate program provides students with a firm foundation in management integrated with a solid understanding of the health-care field and its current delivery systems. Its more than 1,000 graduates hold positions in a variety of settings, including health systems, hospitals, long-term care facilities, group practices, hospices, home health-care facilities and consulting firms.

## Wax wins Rudin glaucoma prize

Martin B. Wax, M.D., has been awarded the 1999 Lewis Rudin Glaucoma Prize by the New York Academy of Medicine. The Rudin Prize is given annually for outstanding glaucoma research published during the previous year.

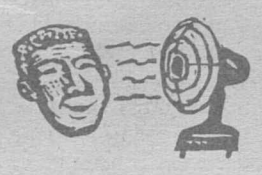
Wax, a professor of ophthalmology and visual sciences at the School of Medicine, was chosen for the prize after a series of scientific articles that demonstrated a role for autoimmunity in glaucoma. The papers, published in the American Journal of Ophthalmology, Investigator Ophthalmology and Visual Science and Archives of Ophthalmology, provided evidence of mechanisms in glaucoma by which the eye can mount an immune response against its own tissues and damage neurons in the optic nerve.

Most patients with primary open angle glaucoma (POAG) have high pressure in the eye, but Wax's studies have particular relevance to patients suffering from normal pressure glaucoma (NPG). NPG patients do not benefit from standard glacuoma therapies that lower intraocular pressure. In addition, NPG patients tend to suffer from higher rates of other autoimmune diseases such as lymphoma and Addision's disease. In several studies, Wax has found that patients with NPG make antibodies that can react with proteins in the eye. Those antibodies react with proteins on retinal ganglion cells that are affected by glaucoma.

# University Events

## Breast Cancer • Iron-Copper Connection • 'Kol Nidrei' • Music of Spain

*"University Events" lists a portion of the activities taking place at Washington University July 13 – Aug. 12. Visit the Web for expanded calendars for the School of Medicine (medschool.wustl.edu/events/) and the Hilltop Campus (cf6000.wustl.edu/calendar/events/).*



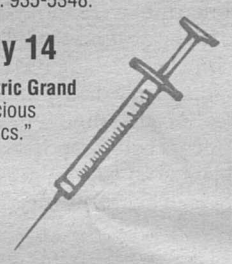
## Lectures

### Thursday, July 13

**1 p.m. Biology and biomedical science thesis defense.** "The Molecular Genetics, Structure and Function of Mammalian Medium and Short Chain L-3-Hydroxyaxyl-Coenzyme A Dehydrogenase." Laurie Kathleen O'Brien, graduate student, molecular genetics program. Room 521 Medical Library. 362-3365.

**4 p.m. Biology and biomedical sciences' Drosophila discussion group.** "Polycomb Silencing and the Maintenance of Determined States." Vincenzo Pirrotta, prof. of zoology, U. of Geneva, Switzerland. Room 212 McDonnell Hall. 935-5348.

### Friday, July 14



**9:15 a.m. Pediatric Grand Rounds.** "Judicious Use of Antibiotics." Penelope G. Shackelford, prof. of pediatrics, assoc. prof. of molecular microbiology and dir. of pediatric ambulatory medicine div. Clopton Aud., 4950 Children's Place. 454-6006.

### Friday, July 21

**Noon-1 p.m. Cell biology and physiology lecture.** "Centrosomes, Genetic Integrity and Breast Cancer." Jeffrey L. Salisbury, prof. of biochemistry and molecular biology, Mayo Clinic, Rochester, Minn. Room 426 McDonnell Medical Sciences Bldg. 362-6950.

### Friday, July 28

**9:15 a.m. Pediatric Grand Rounds.** "The Iron-Copper Connection." Z. Leah Harris, asst. prof. of pediatrics, critical care medicine div. Clopton Aud., 4950 Children's Place. 454-6006.

### Friday, Aug. 11

**9:15 a.m. Pediatric Grand Rounds.** "Update on the Pathophysiology of Diabetes." Kenneth S. Polonsky, the Adolphus Busch Prof. of medicine and dept. chair. Clopton Aud., 4950 Children's Place. 454-6006.

## Music

### Sunday, July 16

**7:30 p.m. Gateway Festival Orchestra Concert Series.** Max Bruch's "Kol Nidrei" and Brahms' "Symphony No. 4." William Schatzkamer, dir. Brookings Quadrangle. 569-0371.

### Thursday, July 20

**8:30 p.m. Holmes Jazz Series.** The Mike Karpowicz Trio. Holmes Lounge, Ridgley Hall. 935-4841.

### Sunday, July 23

**7:30 p.m. Gateway Festival Orchestra Concert Series.** "An Evening of Spanish Music." Featuring Chabrier's "Espana," Lalo's "Symphonie Espagnole," Granados, Turina and Lecuona. Manuel Ramos, violin. William Schatzkamer, dir. Brookings Quadrangle. 569-0371.

### Thursday, July 27

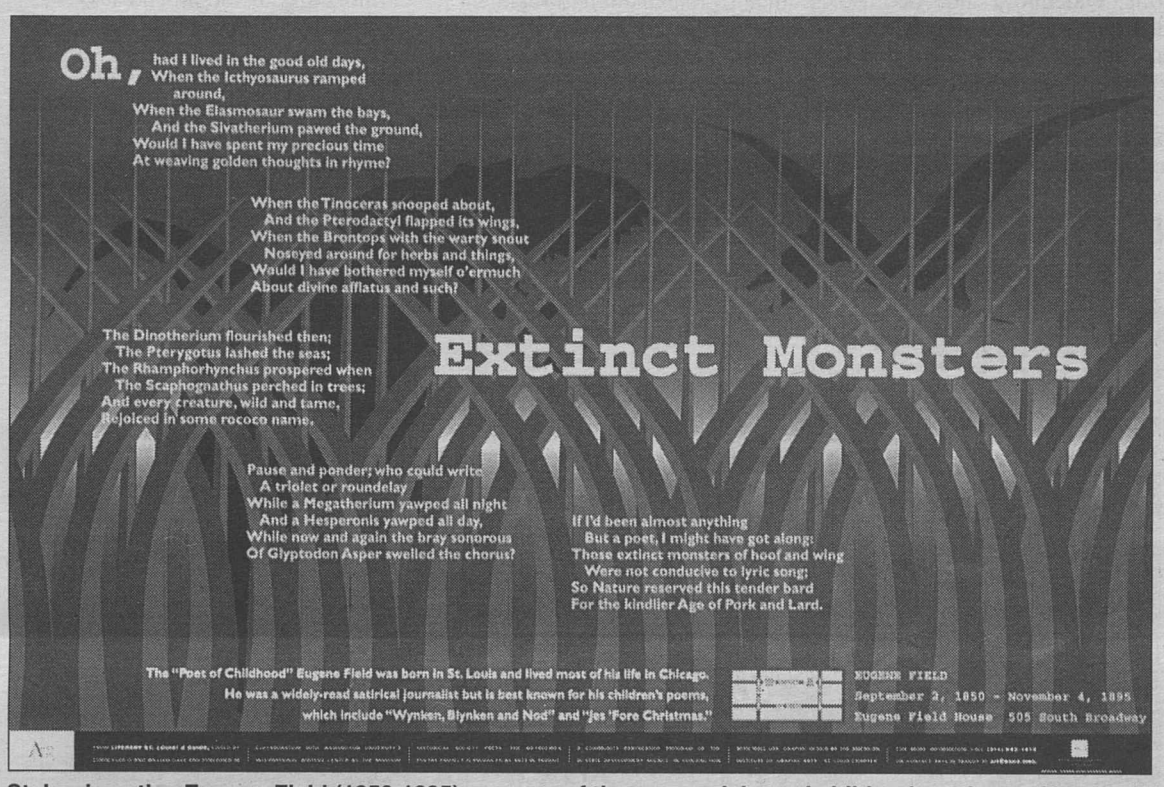
**8:30 p.m. Holmes Jazz Series.** Paul Westcott, piano. Holmes Lounge, Ridgley Hall. 935-4841.

### Sunday, July 30

**7:30 p.m. Gateway Festival Orchestra Concert Series.** Featuring Copland's "Fanfare for the Common Man," Dvořák's "Symphony No. 8," arias from Mozart's "The Marriage of Figaro" and Tchaikovsky's "1812 Festival Overture." William Schatzkamer, dir. Brookings Quadrangle. 569-0371.

### Thursday, Aug. 3

**8:30 p.m. Holmes Jazz Series.** Dave Black Duo. Holmes Lounge, Ridgley Hall. 935-4841.




**St. Louis native Eugene Field (1850-1895) was one of the most celebrated children's authors of his day. This month, his poem "Extinct Monsters" joins passages by other St. Louis authors as part of a series of public posters celebrating St. Louis' remarkable literary heritage. The project is sponsored by Washington University's International Writers Center, Bi-State Development Agency's Arts in Transit and the American Institute for Graphic Arts.**

# Posters preview 'Literary St. Louis'

## Original designs adorn downtown bus shelter

BY LIAM OTTEN

T.S. Eliot was born on Locust Street. Mark Twain piloted steamboats past downtown levees. Theodore Dreiser reviewed plays for the St. Louis Globe-Democrat, and Sara Teasdale watched this "Western city dream by her river."

"Literary St. Louis," a forthcoming guidebook compiled by the International Writers Center (IWC) in Arts & Sciences, focuses on the many authors who lived and worked in St. Louis. The volume, featuring more than 50 profiles as well as maps, illustrations and archival photographs, will be published in September by the Missouri Historical Society.

Area travelers, however, are enjoying a preview: Bi-State Development Agency's Arts in Transit program is displaying a series of posters featuring excerpts from the book in bus shelters downtown. The eight full-color posters — designed by volunteers from the American Institute for Graphic Arts (AIGA) St. Louis — were installed early this month and remain on view through September.

Five of the posters — illustrating passages about the Mississippi River by Twain, Eliot, Dreiser, Fannie Hurst and Heinrich Börnstein — appear along Market Street between Broadway and 14th Street. The three remaining posters, featuring works by Teasdale, Eugene Field and Kate Chopin, are located near sites associated with those authors.

"I think this is an incredibly successful collaboration between the literary and the visual," said Lorin Cuoco, IWC associate director. "We've been gathering material for this project since the IWC was founded in 1990. It's wonderful to have some of that work seen by people around St. Louis."

Designer Amy Fister, a partner in the firm Fister Lauberth Inc., spearheaded the project for AIGA. "I love that the posters are all so different, from bright and bold to simple and geometric," Fister said. "For our organization, this was an opportunity to have designers work together and really provide something for the community."

Fister noted that, while quotes were selected and preparations begun weeks ahead of time, most of the design work was completed in a single Saturday marathon session. "We're used to working quickly," she quipped, explaining that "the purpose of this project was to have the words win — that is, to have the viewer relate and respond to the authors' words. Design is simply the tool that allows that to happen."

Jenny Strayer, public arts manager for Arts in Transit, declared her organization "thrilled with the results" and said they are investigating additional exhibition possibilities.

"The quality of the work is really compelling," Strayer said. "The designers had a lot of fun with this project, and that really comes through in the great job they did."

Steve Hartman, AIGA president, concluded: "A lot of designers feel strongly about the need to give back to their communities. concluded. A project like this allows us to do something good for St. Louis while at the same time educating people about the power and value of graphic design."

"Literary St. Louis" ($19.95, paperback) is edited by Cuoco and William H. Gass, Ph.D., the David May Distinguished University Professor Emeritus in the Humanities and IWC director. The volume is designed by Ken Botnick, associate professor of graphic design in the School of Art and director of the University's Nancy Spirtas Kranzberg Studio for the Illustrated Book, and features illustrations by Emily Pyle, BFA '99. Images were curated by Michelle Komie, BA and BFA '97, program coordinator of the IWC.

The volume is distributed by the University of Missouri Press. For more information about the book or to place advance orders, call (800) 828-1894.

# Two summer concert series offer wealth of free music

Looking for a pleasant way to pass lazy evenings before next semester's academic onslaught? This summer, the Holmes Jazz Series and the Gateway Festival Orchestra will conspire to help campus concert-goers mark time with a wealth of free music throughout July and early August.

Now entering its third year, the Holmes Jazz Series presents St. Louis musicians performing in Holmes Lounge at 8:30 p.m. Thursdays. On July 20 the Mike Karpowicz Trio comes up to bat, followed by pianist Paul Westcott July 27 and the Dave Black Duo Aug. 3. For further information, call 935-4841.

The Gateway Festival Orchestra, now in its 30th season, performs at 7:30 p.m. Sundays in Brookings Quadrangle. On July 16 the orchestra — under the direction of conductor William Schatzkamer, professor emeritus in the Department of Music in Arts & Sciences — performs Max Bruch's "Kol Nidrei," Johannes Brahms' Fourth Symphony and Friedrich von Flotow's Overture to "Martha."

On July 23 the orchestra will perform "An Evening of Spanish Music," including Edouard Lalo's "Symphonie Espagnole" (with Manuel Ramos as violin soloist) and the music of Enrique Granados, Emmanuel Chabrier and Ernesto Lecuona-Jenkins. On July 30, the orchestra performs Aaron Copland's "Fanfare for the Common Man," Antonín Dvořák's "Symphony No. 8," arias from Mozart's "The Marriage of Figaro" and Tchaikovsky's "1812 Festival Overture."

In the event of rain, the orchestra will perform in Graham Chapel at the same hour. For further information, call 569-0371.

The Holmes Jazz Series is sponsored by the College of Arts & Sciences, the Department of Music, the Office of Student Activities and Campus Life. The Gateway Festival Orchestra is sponsored by Washington University, the American Federation of Musicians, the Recording Industry Trust Fund, the Arts & Education Council of St. Louis, the Regional Arts Council, the Missouri Arts Council and Emerson Electric Co.

# Genome

## *WU researchers join White House event*

— from page 1

President Bill Clinton noted that the ceremony was taking place in the room where Meriwether Lewis unrolled the map of his western expedition for Thomas Jefferson. "The human genome is the most important, most wonderful map ever produced by humankind," Clinton said.

The genome is the basic set of inherited instructions for the development and functioning of a human being. Sequencing means determining the exact order of DNA's four chemical bases, commonly abbreviated A,T, C and G. The medical school here was one of the five largest sequencing centers contributing the bulk of the data.

In addition to sequencing cloned DNA, researchers at the medical school positioned the clones on the chromosomes, making it possible to determine how the fragmentary sequences fit together.

Approximately 50 percent of the genome sequence now is in near-finished form or better, and 24 percent is completely finished. This working draft is helping scientists understand how a human being develops from a fertilized egg to an adult. It also is revealing what goes wrong at the genetic level in many diseases. Using this information, scientists hope to develop drugs that compensate for genetic glitches, even tailoring drugs to the genetic makeup of individual patients.

Craig Venter, president of Celera Genomics, also announced the completion of his company's working draft at the White House event. Celera and the Human Genome Project used different sequencing strategies to reach their goals.

The researchers now must polish their drafts. Back at work, Sekhon said, "Our job only gets tougher. Some of the pressure is off, but there are still gaps in the sequence to close." The official deadline for the final, highly accurate draft is 2003, but the public consortium has a history of beating deadlines.

# Challenge seeks to raise $500,000 for architecture

Fred M. Kemp, a St. Louis architect and an alumnus of the School of Architecture, has established the Kemp Challenge to match gifts made to the school's annual fund up to $500,000 over two years.

"Fred M. Kemp is a generous and dedicated alumnus who has contributed greatly to his profession and to the University," said Chancellor Mark S. Wrighton in announcing the pledge. "He cares deeply about sustaining the excellent reputation that the School of Architecture enjoys today, and wants to ensure that it continues well into the future. Supporting a school's annual fund is an important way to secure ongoing success for the school and to provide support for current programs, as well as for planning and implementing new ones."

Kemp, who received a bachelor's degree in architecture in 1950, is president of Kemp Homes, a company known for its innovative contributions to the development of residential communities. Kemp is actively involved in the architecture school, co-chairing its Major Gift Committee and serving on its National Council.

"Fred M. Kemp understands the value of a robust annual fund to our school, and wants to motivate other friends and alumni to boost its strength," explained Dean Cynthia Weese, FAIA. "It is Fred's and my great hope that others will follow his lead and participate in this challenge."

The Kemp Challenge will match all new or increased annual fund gifts on a 4-to-1 ratio and all renewed annual fund gifts 1 to 1, for a total match of $250,000 a year in 1999-2000 and 2000-2001. The challenge hopes to raise the support of Washington University alumni; to date nearly 30 percent of alumni have pledged for the annual fund. "Our goal is to increase the number to 35 percent of alumni pledging their support to the annual fund by the year 2004," Weese said.

The Kemp Challenge is part of the Campaign for Washington University, a major initiative which aims to build on the University's record of excellence and to bring greater benefit to the St. Louis region. The campaign, set to end June 30, 2004, has secured gifts and commitments totaling $885.9 million to date.

DAVID KILPER

**Travis Walker, a participant in the Minority Youth in Construction Program, admires a mobile crane being used to place stone on the exterior of the Charles F. Knight Executive Education Center. Walker, who will attend Normandy Senior High School in the fall, is one of 33 teens in the new six-week program.**

# Water

## *New method will aid in pollution studies*

— from page 1

there? You can have an old water sample, put in a tiny amount of some trace chemical, and then what are you going to do, two years from now say that water is two years old? All you know is when that tiny amount of trace material got in there.

"The oxygen isotope method is intrinsically tied to the bulk water volume itself; thus we're dating water, and not the tracer."

Similarly, Criss said, some researchers put dyes into water to get information about a water system. While this can reveal information about the flow of water, its fastest pathway and other clues about a system, it gives no clear picture of the water's age.

Criss described his method in a paper, "Geochemical Hydrology of the Rivers and Springs of Missouri," delivered this spring at the Geochemical Perspectives on Environmental Processes (GPEP) 2000 conference held here. His work is supported by the National Science Foundation.

Time provides the key baseline for researchers to understand how a water system works and how undesirable pollutants move through the system.

He uses an isotopic mass spectrometer to separate and identify atoms by weight and other characteristics to determine age and additional factors. Older ground water is more pristine, normal in its carbon, oxygen and hydrogen isotopic ratios and lower in nitrates, compared with younger ground water.

Younger ground water can be high in nitrates and higher in carbon-14 and will have a distinctive isotopic signature if a significant fraction of the water has been lost by evaporation. This signature helps Criss trace the water to agricultural or industrial sources.

In studying the nation's big rivers, Criss and his collaborators will use oxygen-18 as their linchpin to learn how the rivers operate, where the water comes from and how old it is. They plan to learn more about flooding in the watersheds and how the different systems respond to various precipitation events. They also will examine pollutants.

"We hope with this new method we'll be able to separate sources of contamination geographically," he said. "We're confident that reach by reach, we'll be able to identify where different chemicals and contaminants are introduced into the river system. For example, we know now that virtually all of the nitrate in the Missouri River is introduced south of Bismark, N.D. Virtually all of the sulfate and sodium in the river are introduced west and northwest of St. Joseph, Mo. We'll be able to narrow down parameters like these even more."

Finally, Criss and his collaborators will use the method to examine the effects humans have had on the rivers over time. They will examine how the rivers behave now compared with how they would have in the past.

"Oxygen-18 is a fingerprint," Criss said. "How you use it depends on how clever you are as a detective."

# Youth

## *Minority teen-agers get experience with construction*

— from page 1

the construction trade," Marks said. "Construction sponsors provide 'real-world' applications of these math skills to strengthen their understanding and ability to apply concepts taught."

The students, ranging in age from 13 to 15, also are participating in personal development and life-skills activities, including oral and written communications, career planning, decision making/personal choices, and financial planning/budgeting. Each Friday they go on a field trip. In addition to touring construction sites on the Hilltop Campus, the class has been to Saint Louis University and the University of Missouri-St. Louis to compare construction and architecture among the universities.

On a recent Friday, the group also visited the St. Patrick's Center site downtown where Mosley Construction, a minority-owned firm, is the general contractor. The construction firm was hosting an employee recognition day, so the teens got to attend a barbecue in addition to touring the site at the former Sverdrup building.

"We have a broad range of students academically," said Arthur Porter, program director. "Some may not go on to college. We show them an alternative career path much more rewarding than a low-paying dead-end job."

Porter will meet with the students once a month on Saturdays for 10 career development sessions throughout the school year.

Tierra Ford, 14, said she was a little leery of participating in the program when her mother initially told her about it.

"At first, I was like, 'I don't know if I want to.' But I like working with the other students," she said. "I like being on campus. It gives me a feel for college, and I know I want to go to college now. I love computers, and I love science."

Ford, who will attend Hazelwood East in the fall, said she was amazed at all of the construction on the Hilltop Campus.

"I want to be a part of it," she said. "I want to help design buildings. I really love the architecture."

Porter noted: "A lot of kids today get into trouble because they hang around with the wrong kids. This program is creating a new peer group for them with a shared focus. This helps pull them away from the negatives."

Tammy Franks, who will be a freshman at Normandy Senior High in the fall, said the life skills she is learning through the program will come in handy later in life.

"This will help me when I get older, and I needed something to do over the summer," the 14-year-old said. "Last year I went to science camp at UMSL, and it was fun. Here I really like the field trips, and we get to work on the computers and on the Internet."

The program is the brainchild of Ralph Thaman, director of facilities and management. He said he wanted to do something with young people that would also help respond to the lack of minority firms in high-end trades, such as mechanical, electrical and plumbing.

"There is a difficulty in finding construction workers today, and young people are not going into construction. I thought if we could get them interested younger, even if they go to college they could work in construction in some way," he said. "I also thought it was a great opportunity for those who might not be able to or might not want to go to college. There are a lot of good opportunities in construction, but unless you get them interested at a young age they don't seem to get into it."

Marks echoed Thaman's thoughts.

"In the next five years, St. Louis is going to be short people in construction. We will have about 100 people in the pipeline to be in the union," she said.

"Studies show that part of the reason for the high dropout rate during the first two years of high school is that there are not enough African-American role models. They are getting that here, and we are showing the kids that there is a reason to do well in high school even if you are not going to college. We tell them that they can join the union when they turn 18 and ultimately make $25 an hour — $50,000 per year — depending on the trade. We are also exposing them to Washington University, and they may decide to enroll here and become an architect or an engineer."

That's exactly what 14-year-old Shaquon Howard plans to do.

"I am very interested in engineering. I like math and science, and when I was little I would work around the house with my dad," he said. "My science teacher at Normandy Middle School told me about the program."

**"We have a broad range of students academically. Some may not go on to college. We show them an alternative career path much more rewarding than a low-paying dead-end job."**

ARTHUR PORTER

James Pennington, 15, chose the MYIC program instead of a summer academy focusing on poetry, and he's glad he did.

"I love poetry, but I picked this one over that to learn about math and construction," he said. "I am interested in bricklaying and contracting. Ever since I was about 10 or 11 I've liked to build things. I am good with my hands. I want to be better in computers."

The University is providing the classroom space for the program and pays Marks' and Porter's salaries. St. Louis area contractors are sponsoring students and are funding the $150 stipend each student will receive upon successful completion of the session this summer.

# Campus Watch

The following incidents were reported to University Police from **June 12 – July 9**. Readers with information that could assist in investigating these incidents are urged to call **935-5555**. This release is provided as a public service to promote safety awareness and is available on the University Police Web site at **rescomp.wustl.edu/~wupd**.

### June 22

9:01 a.m. — A laser jet printer valued at $2,500 was stolen from an unlocked room in Bryan Hall.

### July 6

11:44 a.m. — A student reported that someone had opened a cellular telephone account using his Social Security number and had accumulated $342 in charges. The account was referred to the company's fraud department.

*University Police also responded to 11 additional reports of theft, six reports of vandalism, three reports of attempted theft and one report each of unlawful entry, false fire alarm, peace disturbance, an auto accident, a trash can fire and a burglary.*

JOE ANGELES

**Risa Zwerling and Chancellor Mark S. Wrighton welcome former President George Bush during his 1999 visit to the University.**

# First lady

## *Zwerling has gift for connecting with others*

— from page 1

assistant vice president of direct marketing. She's worked for Magellan and its predecessor firms since 1992.

At Magellan, the nation's largest provider of employee assistance and behavioral health programs, she's responsible for product development and implementation, and she manages external vendors who provide some of Magellan's services. Eighty account managers take employer needs to her, and she either purchases the services from vendors or builds them in-house. Magellan serves 2,000 corporate clients and 70 million people, providing everything from mental health programs to assistance finding children's piano lessons and pet sitting.

With this substantial portfolio, Zwerling has made countless connections at Magellan. Judy DeWoskin, a project manager who reports to her, enjoys one of them. "She is a wonderful mentor," DeWoskin said. "She gives you the freedom to learn and grow. She's excellent at making things happen."

Zwerling makes things happen elsewhere as well, volunteering at Our Little Haven, a refuge for drug-exposed and abused children up to age 5. She spends Wednesday evenings connecting with 2-year-olds — "I sit on the floor and let the kids climb all over me," she explained with a happy grin.

For 15 years, she has been active also with St. Louis' Central Reform Congregation, which she and her daughters joined because she wanted them to know and cherish their Jewish heritage. She values deeply the sense of belonging and cultural identity that they've found there. She recently joined its board of directors.

And she has become a director of the Center of Contemporary Arts, University City, Mo., where both her daughters learned to dance.

She hopes to maintain her volunteer commitments after her marriage, but she also looks forward to being an integral part of the University community. "I would love to use my time and talent to help the University," she said. "I hope always to have my own projects and areas of responsibility."

Connecting with students over dinner at Harbison House — and perhaps enlisting other University families to do the same — is one contribution she would like to make, to help ease the transition into life away from home.

She intends to be present and visible in other ways, too. She loves watching the NCAA Division III champion women's basketball team and the volleyball team. Going to their games, she said, "is the single thing I do with Mark that's pure escape. What's greater than cheering for a team?"

She also anticipates providing the University community another means of connecting to the chancellor. "I think I can help make Mark more accessible," she said. "We've all been awed by his intelligence, but he really is such an approachable person. I'm an ice-breaker. I like to put people at ease. Maybe I can be a little bit of a bridge."

Her effervescent, sometimes irreverent humor will certainly help. Her daughter, Anna, listed her sense of humor high among her many attributes, though she also stressed Zwerling's independence and strength of character. When asked what she would most like the University to know about her mom, Anna replied: "I would like the University to know what a self-made person she is, to appreciate how smart and capable she is."

Of the melding of her family with Wrighton's (which includes his son, J.J., 22, who graduated from the University in May, and daughter, Rebecca, 19, a sophomore here), Anna said: "Everyone gets along really well. Mark just makes her so happy. They're a great pair."

The transition certainly will involve adjustments. Zwerling and her daughters love their University City home. "It has been a fortress for me and the girls," she noted. Their plan is to part with it slowly, to move "in increments" to Harbison House, where Leah, 15 and a sophomore at Clayton High School, will add a youthful presence. A field hockey player and a dancer with the pre-professional COCAdance Company, Leah will introduce a spirited new rhythm to the household, bringing friends, pizza parties and more to its stately rooms.

"I'm really excited about it," Leah said of the move. "This is going to be a new adventure for us. For our family, it's always been just the three girls. This will be a new way of life — not just having a man in the house, but being part of the University."

Leah and Anna, a junior dance and psychology major at Connecticut College, New London, represent two of Zwerling's deepest connections. "My daughters are my true soulmates," she said. "We are all very close and can spend entire evenings laughing about nonsense. We share clothes and listen to the same music." Right now, Zwerling and Leah are also sharing time behind the wheel: Zwerling is giving Leah driving lessons, "in the cemetery," she noted, "because, well, everybody is already dead there, and what harm can she do?"

Zwerling said both girls are looking forward to having a stepfather. "Their own father died in September 1995," she explained. "Although they know no one can take their dad's place, they're looking forward to having another parent in their corner — you can't have too many loving parents — and Mark has demonstrated his deep commitment and caring for them in innumerable ways."

Among other adjustments involved in the move, there's also the matter of the pets. An avid animal-lover, Zwerling has three cats and a dog; Wrighton has two older cats. They're looking for good homes for two of her felines.

But the transition is easier, Zwerling said, because of the nature of Washington University. "I truly think the community is unique," she reflected. "I can't imagine a place being so warm and welcoming."

After she and Wrighton decided to marry, she talked with Elizabeth "Ibby" Danforth, wife of Chancellor Emeritus William H. Danforth and the University's beloved first lady for 24 years. "I asked her if we could have lunch so she could give me some pointers," Zwerling recalled. "'I want to have lunch,' Ibby said, 'but let me give you give you the pointers right now — be yourself! Now, when can we have lunch?'"

When asked what she would like to say to the University community as she prepares to take up this new role, once more the conversation turned to connections. "I'd like to thank them for embracing me in such a wonderful way," she said. "I want the community to feel free to knock on our door. And, one more thing — if anyone needs a cat … ."

# New U College program links liberal arts, business

By Christine Farmer

A new Liberal Arts and Business (LAB) certificate program geared to aspiring business professionals will begin this fall. The program, offered through University College in Arts & Sciences, provides resources and strategies to help people lead others and their organizations successfully and manage their own careers.

The program offers an 18-unit certificate and a 30-unit advanced certificate that can be pursued separately or along with a bachelor's degree. Students must have three years of work experience to be admitted. In addition to the two required courses — "Leadership for Organizational Success" and "Professional Writing, Speaking and Presentation" — there are numerous courses to choose from in the following seven key skill areas:

- Leadership, Teamwork and Organizational Success;
- Written, Oral and Electronic Communication;
- Critical Thinking, Problem Solving and Decision Making;
- Information Technology;
- Quantitative and Financial Analysis;
- Global Awareness and Diversity; and
- Ethical Decision Making.

"A leader in today's work force must be equipped to manage people, perform multiple tasks, communicate effectively, analyze problems, consider many perspectives when making difficult choices and bring about innovation and change," said Steven M. Ehrlich, University College assistant dean and adviser to the program. "These leadership qualities are best acquired through a rigorous and flexible liberal arts education. This program allows students the flexibility to choose courses in liberal arts and business areas that most closely relate to their professional goals."

Mike Marquart, a partner in Marquart Beverage Co. L.L.C., an Anheuser-Busch wholesale distributor in Washington, Mo., took one of the required program courses in the spring and plans to enroll in the program this fall.

"Having not been to college, I thought the class was really enlightening, and hopefully I will be able to apply what I learn to become more successful in running my business day to day," he said. "It was interesting to see how other people think. I am going to go for the advanced certificate. I would eventually like to get a degree."

LAB is ideal for someone working towards a bachelor's degree, as the courses count towards the degree and the certificate.

"The program is geared towards people interested in continuing their education and especially aspiring leaders — entry level to middle management — who want to acquire skills to manage others and move ahead in their careers," Ehrlich said. "LAB helps students develop practical skills and insights to make connections between a liberal arts education and the workplace."

**"A leader in today's work force must be equipped to manage people, perform multiple tasks, communicate effectively, analyze problems, consider many perspectives when making difficult choices and bring about innovation and change."**

Steven M. Ehrlich

Each semester all students will receive specialized advising, and workshops and programs for leadership development and career planning will be offered. Ehrlich said he plans to develop a Web page for students enrolled in the program so they can continually monitor their experience and get feedback. He also is looking into customizing the program to offer it to corporations.

While the LAB program is adapted to an adult student audience, qualified day students can take courses without enrolling in the program. Ehrlich said the College of Arts & Sciences also is continuing to develop the Leadership and Effectiveness in Organizations program, which will be a sister program to LAB geared to day students. Fall registration for the LAB program and all University College courses begins July 26. For more information, visit www.artsci.wustl.edu/~ucollege or call 935-4320.

# Employment

Use the World Wide Web to obtain complete job descriptions. Go to **https://hr.wustl.edu/ (Hilltop)** or **http://medicine.wustl.edu/wumshr (Medical)**.

## Hilltop Campus

*Information regarding positions may be obtained in the Office of Human Resources, Room 130, West Campus. If you are not a WU staff member, call 935-9836. Staff members call 935-5906.*

**Director of Development/ Executive Faculty Liaison** 990280

**Science/Engineering Librarian** 990364

**Regional Director of Development** 000057

**Chemistry/Earth Sciences Libraries Assistant** 000099

**Administrative Coordinator** 000160

**Research Assistant** 000191

**Lab Technician** 000208

**Sr. Prospect Researcher** 000212

**Department Secretary** 000222

**Systems Manager** 000239

**Lab Technician III** 000241

**Department Secretary** 000251

**Associate Director of Capital Projects** 000253

**Research Technician** 000256

**Watchman (licensed)** 000262

**Admissions Assistant** 000266

**Deputized Police Officer** 000272

**Administrative Assistant** 000273

**Manager of Systems Support and Development** 000277

**Administrative Assistant** 000278

**Department Secretary** 000283

**Registrar** 000292

**Sr. Research Assistant/Jr. Research Associate** 000297

**Research Technician** 000300

**Human Subject Coordinator** 000310

**Government Grants and Contracts Reporting Specialist** 000313

**Senior PC Support Specialist** 000314

**Government Grants Specialist II** 000320

**Department Secretary** 000323

**Director** 000329

**Coordinator, Alumni and Student Marketing and Relations** 000331

**Assistant/Associate Dean for Graduate Programs** 000334

**Music Library Assistant (Technical Services)** 000336

**Department Secretary** 000337

**Director, Alumni and Parents Admission Program** 000338

**Audio/Visual Coordinator** 000339

**Research Assistant** 000341

**Assistant Director, Alumni and Parents Admission Program** 000342

**Reference/Subject Librarian for Art and Architecture** 000344

**Programmer Trainee** 000346

**Financial Analyst/ Budgets** 000349

**Administrative Assistant** 000350

**Facilities Administrative Coordinator** 000351

**Associate Director of Parent Programs** 000352

**Department Secretary** 000354

**Accountant-Reporting** 000355

**Administrative Assistant** 000356

**Administrative Assistant** 000357

**Public Service Coordinator** 000359

**Communications Technician I** 000360

**Senior Internal Auditor (part time)** 000361

**Lab Technician III** 000363

**Director of Employee Relations** 000364

**Switchboard Operator (part time)** 000365

**Administrative Secretary** 000366

**Departmental Receptionist** 000367

**Project Manager** 000368

**Stack Maintenance/ Updating Assistant** 000369

**Director of Alumni and Constituent Relations** 000371

**Library Services Assistant** 000372

**Assistant Director of Admissions** 000373, 74, 75, 76

**General Services Assistant** 000377

**Accounting Systems Supervisor** 000378

**Unix Systems Administrator** 000379

**Student Records Office Assistant (part time)** 000380

## Medical Campus

*This is a partial list of positions at the School of Medicine. Employees: Contact the medical school's Office of Human Resources at 362-7196. External candidates: Submit resumés to the Office of Human Resources, 4480 Clayton Ave., Campus Box 8002, St. Louis, MO 63110, or call 362-7196.*

**Clinical Laboratory Assistant** 001592

**Professional Rater (part time)** 001726

**Pre-clinical Business Manager** 001853

**Medical Records Clerk (part time)** 001924

# Notables

## Jeff Pike reappointed dean of School of Art

Jeff Pike has been reappointed dean of the School of Art, effective July 1, according to Chancellor Mark S. Wrighton. The appointment follows the work of an advisory committee co-chaired by James W. Davis, Ph.D., professor of political science in Arts & Sciences, and Ronald A. Leax, professor of art.

"The committee reviewed many outstanding candidates in a national search to identify possible leaders for the School of Art," Wrighton said. "I have selected the best person possible for this important position and am delighted that Jeff has agreed to continue on as dean. Over the last year we have benefited greatly from his talents and dedication as well as from his 17 years of experience as both faculty member and associate dean. Under Jeff's leadership, I look forward to the continued strengthening of the visual arts at Washington University.

**Pike:** Joined University in 1984

"I also would like to thank all members of the advisory committee who assisted me in the process leading to Dean Pike's reappointment," Wrighton added.

Davis said: "The committee engaged in a year-long search, and I think Jeff Pike is a superb choice. He knows the school, and he knows the University, and he certainly enjoys the respect of his colleagues."

Added Pike: "I am extremely honored by this opportunity. Washington University's School of Art has a long history of distinction, providing its students with the highest quality studio and academic training. As a professional school of art and design, we've been able to take advantage of our position within a major research university and build on the broad support we receive from the administration as well as from faculty, staff, alumni and friends of the school."

In addition to overseeing the School of Art, Pike's responsibilities include participating in the development of the Visual Arts and Design Center (VADC) at Washington University as a member of the VADC Executive Committee.

"Dean Pike has played a key role over the last year as we have continued to refine our plans for the VADC," Wrighton said. "I am confident that we will continue to build on that momentum and on the momentum generated under our previous dean, Joe Deal."

Pike also serves as associate professor of art in the illustration concentration within the visual communications major. His work has appeared in numerous print and broadcast venues, and his clients include major corporations and advertising agencies. Currently, he is involved in a collaborative book project with an author and playwright, which is scheduled for completion in 2001.

Pike has won several Addy and Flair awards for his creative work in advertising and his illustrations have received numerous honors.

Pike earned a bachelor's degree from the Kansas City Art Institute in 1976 and a master of fine arts in visual communication from Syracuse University in 1978. He taught at several institutions, including the Philadelphia College of Art, before joining the Washington University art faculty in 1983.

During his tenure at the art school, Pike directed the illustration program from 1984 to 1994 and, as associate dean from 1993 to 1999, was responsible for overseeing the undergraduate program. Pike also served as chair of the VADC Curriculum Committee from 1996 to 1999.

## Of note

**Judith A. Fox,** assistant dean for access and bibliographic description in University Libraries, was recently elected to a three-year term as the Missouri Library Network Corp. (MLNC) representative to the Online Computer Library Center (OCLC) Users Council. The OCLC is a nonprofit membership organization that offers information services to over 36,000 libraries and their users in 74 countries. The Users Council is part of the OCLC governance structure and is comprised of 60 representatives who represent member libraries and provide OCLC with information about issues affecting libraries and OCLC. MLNC serves as the OCLC Regional Network for the state of Missouri. …

**Mark Aaron Friedman,** who completed a major in biology and a minor in English literature in the College of Arts & Sciences, is the recipient of the 2000 Harrison Dailey Stalker Award. The award is named after the late Harrison D. Stalker, Ph.D., a professor of biology at Washington University for 40 years. It is given annually to a graduating senior distinguished for both academic excellence in science and for breadth of interests. Friedman, in addition to his academic performance, his major and minor concentrations, and his involvement in Judaism and Middle Eastern studies, has been a longstanding member of men's varsity tennis. He graduated with honors in May and will begin medical studies in the fall. …

**Christine Fuhler,** secretary for Daniel M. Goodenberger, M.D., director of the division of medical education for the Department of Medicine, won a one-day trip to Orlando's Universal Studios Island of Adventure on Secretary's Day. She was among 25 secretaries from the St. Louis area chosen in the radion station Y98 FM Secretary's Day Orlando Getaway drawing for the VIP tour of Universal Studios' newest attraction. …

**Danielle Ohmes,** a second-year student in the Program in Physical Therapy, received the PT Student of the Year Award for 2000 from the Missouri Physical Therapy Association. Washington University students have won this award for the past three years. ….

**Joseph A. O'Sullivan,** Ph.D., associate professor of electrical engineering; **Barry E. Spielman,** Ph.D., professor and chair of electrical engineering; and **Jonathan S. Turner,** Ph.D., the Henry Edwin Sever Professor of Engineering in computer science, have been honored with the Institute of Electrical and Electronics Engineers (IEEE) Millennium Medal for outstanding contributions in their respective areas of activity. The medal is being awarded to 3,000 members of the IEEE — about 1 percent of the organization's total membership — to commemorate the beginning of the third millennium. The medals program is the first institute-wide medal presentation since the IEEE presented centennial medals in 1984 to mark its 100th anniversary. The IEEE currently has 360,000 members worldwide.

## Speaking of

**Garland E. Allen,** Ph.D., professor of biology in Arts & Sciences, spoke on "Eugenics and Medical Ethics in the Era of the Human Genome Project" at a recent conference on medical ethics sponsored by the Medical College of New Jersey in Newark. He also presented a paper on "The Reception of Mendelism in America, 1900-1920" at a recent conference celebrating the centennial of the rediscovery of Mendel's laws of heredity sponsored by the French Academy of Sciences in Paris. Also this spring, he gave a seminar on the history of the eugenics movement in the United States to the biology department at Dartmouth College in Hanover, N.H., and a talk on "The Relationship between the American and German Eugenics Movements," at a conference on "Science and Medicine Under the Nazis," sponsored by the Holocaust Center at the University of Vermont.

## To press

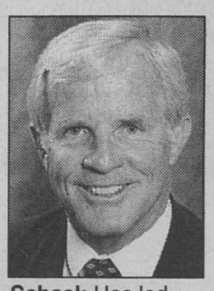
**Wei Luo,** J.D., director of technical services for the School of Law Library, recently had two books — "The Contract Law of the People's Republic of China" and "The Amended Criminal Procedure Law and the Criminal Court Rules of the People's Republic of China" — published by William S. Hein & Co. Inc. in Buffalo, N.Y. …

Carolina Academic Press has published the third edition of the book "Housing and Community Development," which was co-authored by **Daniel R. Mandelker,** LL.B., J.S.D., the Howard A. Stamper Professor of Law. The National Association of Environmental Professionals also has appointed Mandelker as chair of the Legal Issues Committee of its NEPA Working Group.

## John Schael cited as AD of the Year

Athletics Director John Schael, who has transformed the school's athletics department into one of the finest in NCAA Division III, has been named the Division III Central Region winner of the National Association of Collegiate Directors of Athletics (NACDA)/Continental Airlines AD of the Year Award.

Schael, who will begin his 23rd year at the University this fall, was presented the award at NACDA's annual convention, held June 9-12 in Orlando, Fla.



**Schael:** Has led athletics since 1978

The award is presented to 25 athletics directors from across the United States and Canada.

The 1999-2000 school year was one of the most successful since Schael's arrival in 1978. The University tied its own conference record by winning nine University Athletic Association (UAA) titles, and the Bears also set a new school record by sending six teams to NCAA tournaments. The women's basketball team became the first team in Division III history to win three consecutive national championships, while breaking the NCAA women's all-division record for consecutive wins (68).

The football team won its first-ever outright UAA title and advanced to the Division III playoffs for the first time. The men's cross country team won its first UAA title, while the baseball team tied the school single-season record for victories. The women's softball team, in its inaugural year as a varsity sport, stormed to the UAA title, finished the season with a 22-10 record and narrowly missed a bid to the NCAA tourney.

The University's varsity teams finished the year with a cumulative win-loss record of 198-69-2, setting a school record for victories in a season.

Schael has been instrumental in creating the foundation for the department's success. In 1981, he resurrected the men's basketball program after a 10-year hiatus and helped initiate the debut of the Lopata Basketball Classic in 1984. He was involved in the construction and renovation of the athletics facilities from 1983 to 1985. Along with other WU administrators, Schael played a key role in the 1986 formation of the UAA, one of the most respected conferences in collegiate athletics. He also was instrumental in the 1988 creation of the W Club, the department's fund-raising organization, and the 1992 formation of the University's Athletic Hall of Fame.

## India-bound DeKay awarded Fulbright grant

By Ann Nicholson

Mark DeKay, assistant professor of architecture, will spend the next five months researching and teaching about the interrelationship between climate and architecture in Ahmedabad, India, through the J. William Fulbright U.S. Faculty and Professional Grant Program. DeKay was awarded a lecture appointment at the School of Architecture, Center for Environmental Planning and Technology in Ahmedabad, which is in the western Indian state of Gujarat.

**DeKay:** Will spend five months in India

DeKay will introduce Indian students to a range of U.S. software and monitoring tools for analyzing indigenous climatic patterns and for better understanding local, climate-based building design. The region is known for its hot, arid climate throughout most of the year and hot, humid conditions during the monsoon season, which is roughly late June through August.

"Through the cultural exchange program, I will be able to demonstrate a variety of U.S. research and software technologies for assessing various buildings' energy performance, while observing Indian design methods for indoor/outdoor spaces that do not depend upon mechanical air-conditioning despite extreme climatic conditions," DeKay said.

While American architects tend to design self-contained, temperate-climate buildings that require energy-consuming mechanical controls to regulate indoor environments, Indian architects adapt buildings more closely to exterior climatic conditions due to a different building economy with low labor costs and high costs for energy, materials and equipment, DeKay noted.

He believes U.S. architects have much to learn from Indian techniques, ranging from more flexible adaptation of space to innovative use of materials to design strategies that allow buildings to let in or shut out exterior conditions, depending upon climatic patterns.

"In the future, as buildings designed today outlive their fossil- fuel energy resources and the environment is increasingly unable to absorb the pollutants generated by burning fuels, we will have to design and learn to live in more energy-efficient buildings," he said.

DeKay's project builds upon his work with the U.S. Department of Education and several other universities to develop and disseminate architecture course materials that promote energy-efficient design using "Energy Scheming" software. It also is a natural extension of his research for a book he is co-authoring on "Sun, Wind and Light: Architectural Design Strategies," which focuses on environmentally conscious, low-energy building design using the wind and other natural processes for cooling, the sun for lighting and heating.

Fulbright award recipients are selected for outstanding professional achievement and leadership potential. The prestigious international educational exchange program is sponsored by the U.S. State Department's Bureau of Educational and Cultural Affairs to promote mutual understanding between citizens of the United States and other nations.

## Hilltop faculty members receive tenure

At the May 5 meeting of the Board of Trustees, the following Hilltop Campus faculty members were granted tenure, promoted with tenure or appointed with tenure, effective July 1, unless otherwise noted.

### *Appointment with tenure:*

**Ramesh Agarwal,** as professor of mechanical engineering;

**Francine Berman,** as professor of computer science;

**Pascal Boyer,** as professor of anthropology and the Luce Professor of Collective and Individual Memory (effective date to be determined);

**Kevin J. Murphy,** as the John M. Olin Distinguished Professor of Business, Law and Economics; and

**Nancy C. Staudt,** as professor of law (effective Jan. 1, 2001).

### *Promotion with tenure:*

**Barton H. Hamilton,** to associate professor of economics and management.

### *Granting of tenure:*

**Guofu Zhou,** as associate professor of finance.

# Washington People

DAVID KILPER

Wendy F. Auslander, Ph.D. (left), works with St. Louis-area peer counselors in the "Eat Well, Live Well" program she pioneered with colleagues at the School of Medicine.

## Knowing the transforming power of hope

### Wendy Auslander, Ph.D., studies social factors impacting health

BY GERRY EVERDING

We live in a world in which the Human Genome Project and other dramatic medical advances are providing new hope to people coping daily with chronic diseases, even those with advanced cases of AIDS, cancer and heart disease.

Wendy F. Auslander, Ph.D., associate professor at the George Warren Brown School of Social Work, knows more than most about the power of hope.

In more than two decades of research into chronic disease management and health promotion, she has shown that hope for the future plays a critical role in helping people change their lifestyles to better cope with or avoid serious health problems.

Her research with troubled teens suggests that the best way to change behavior, to reduce risky habits such as drug and alcohol abuse and unsafe sex, is to provide youngsters with realistic expectations for an education, a good job and a degree of happiness.

"Today, many of the kids we deal with in the social service system have little sense of the future," she said. "They see friends and family members floundering in jail, on welfare, getting shot or doing drugs, and they don't see how their lives will be any different."

Race, poverty, education and other environmental factors play a large role in the health equation, she added, because it is these factors that so often influence people's attitudes about the future and their lives. Much of her work focuses on tailoring behavioral health promotion programs to meet the unique needs of specific target communities.

An avid traveler, Auslander enjoys time at California's Yosemite National Park.

### A pioneer

Auslander has pioneered innovative community-based intervention programs for inner-city African-American women battling obesity, for abused and neglected children in foster care who face higher risks for drug abuse and sexually transmitted disease, and for American Indians on an Arizona reservation with the world's highest per capita incidence of diabetes.

She has found, for instance, that African-American women in the inner city respond better to nutrition tips when they are presented by other neighborhood women who have been trained to serve as peer counselors. Similarly, because Tohono O'odham on remote desert reservations often are not willing or able to substitute fresh salads for traditional meals of Indian tacos, Auslander is developing a program that encourages them to prepare traditional foods using less fat, sugar and salt.

"You're missing the boat if you attempt to modify health behaviors without paying attention to racial, cultural and gender issues that influence how people live their lives each day," Auslander said.

Auslander is no mere observer of the challenges of lifestyle changes. She was just 13, growing up in Great Neck, Long Island, N.Y., when she got news that would force serious changes in her own life — she was diagnosed with insulin-dependent diabetes.

Years later, as a newly minted assistant professor of social work at Washington University, her personal experiences coping with the disease would help her write a clear and compassionate article advising teens on the pros and cons of "going public" about having diabetes.

"Telling nobody," she wrote, "means not getting the support you need throughout your life. And support from your friends, your colleagues, your family, your partner, makes all the difference in the world."

Auslander knew firsthand that it made sense for teens with diabetes to alert a teacher or sports coach. She also knew it could be more than difficult for teens to broach the subject on a first date. Personal insights such as this have helped hone her intuition about the emotional challenges of coping with chronic disease. Her social work education has driven home the importance of backing up her hunches with hard facts and evidence-based research.

In an early article in the Journal of Pediatric Psychology, Auslander and colleagues from the School of Medicine documented subtle but important differences in the kinds of social support that teenagers receive. Titled "I Get By With A Little Help from my Family and Friends," the article reported that when compared with family, friends were a much greater source of emotional support for teens coping with diabetes. Family members, on the other hand, provided more support for tasks related to diabetes management.

Lessons such as these, gleaned from dozens of investigations and community-based studies aimed at helping teens and families cope with chronic diabetes management, have helped inform Auslander's work on a wide range of similar health issues.

Now recognized as a national authority on social factors that influence personal health behaviors, she has received funding as principal investigator or project director on more than 10 research projects from the National Institutes of Health. She has served on the editorial boards of four leading journals, including Health & Social Work and The Journal of Early Adolescence, and on the advisory boards of a half dozen community service agencies, including the St. Louis AIDS Foundation and the American Diabetes Association.

While her interest in human behavior now extends far and wide, she still traces her curiosity to childhood excursions into the heart of New York.

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>
> WENDY AUSLANDER

"My parents worked in New York, and so our family spent a lot of time in the city, and there were all kinds of people on the streets," she said. "I have always been fascinated by people, especially those less fortunate. In those days there was a lot of poverty in the city, a lot of people living on the streets. I was always saddened about how and why they ended up there."

Auslander ended up at Cornell University, where she pursued studies in human behavior, psychology and child development, graduating in 1977 with a bachelor's degree in human development and family studies.

Washington University was her first choice among graduate social work programs, but her immersion in diabetes research here came about by fluke — her boyfriend overheard a conversation about the Diabetes Research and Training Center at the medical school. Auslander called about volunteering and learned they were looking for a part-time research assistant for a childhood diabetes study. She got the job and the chance to work with Barbara Andersen, Ph.D., a leading pediatric psychologist now at Harvard University.

"I had my first real mentor, and I realized how much I loved conducting clinical research," she said. "I knew then I wanted to do more research on these issues and that I'd need to get my Ph.D. if I wanted to pursue it seriously."

The University turned out to have one of the nation's best diabetes research programs. Auslander began working as a clinical social worker and research associate under the late Julio V. Santiago, M.D., then an internationally known pediatric diabetes specialist.

"All of a sudden I found myself working with all these great people in the diabetes research field," she said. "The opportunities, coupled with my personal interest in the disease, made the career choice too difficult to pass up."

Auslander earned a master's in social work in 1979 and, because of her fascination with research, decided to pursue a doctorate here. She spent a year conducting evaluation research in the Department of Pediatrics at Thomas Jefferson Medical College in Philadelphia and completed her doctorate in 1986. She joined the faculty here as an assistant professor in 1986 and was named associate professor in 1992.

### Health promotion

While her early research focused on helping people cope with chronic diseases and other existing health problems, Auslander soon became interested in helping people prevent health risks before they pose a problem.

"My work has taken a big turn toward health promotion and disease prevention," Auslander said. "When I first got involved with HIV research, around 1987, it became pretty clear that there were more benefits in helping people prevent the disease than in helping them live with it. In those days, HIV was not considered a chronic disease; people planned on dying, and there was not much you could do about that."

Although her research focuses on the special needs of society's most neglected subsets — children, the poor, minorities, people with chronic diseases — the lessons she has learned and the techniques she uses are relevant for all of us.

"We all live chaotic lives these days," she said. "How many of us come home from work each night too tired to exercise, too busy to eat right?"

Through her research, Auslander hopes to help people of all backgrounds develop a greater understanding of how their health is shaped by personal attitudes, environmental challenges, cultural expectations and the support of family, friends and communities.

Asked what would happen if medical science found a cure or vaccine for HIV or diabetes and her research was no longer needed, Auslander smiled. "That," she said, "would be great!"

**Wendy F. Auslander, Ph.D.**

**Born and raised** Great Neck, Long Island, N.Y.

**Education** B.S.(1977), Cornell University; MSW (1979) and Ph.D.(1986), Washington University

**Hobbies** Tennis, traveling, music, movies, theater, cooking, walking, Airedale terriers